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(54) **NAVIGATION SYSTEM AND METHOD TO SCROLL TO USER SELECTED POINT OF INTERESTS (POIS)**

(71) Applicant: **Honda Motor Co., Ltd.**, Minato-ku, Tokyo (JP)

(72) Inventors: **Jumpei Ichinokawa**, Rolling Hills Estate, CA (US); **Maja Kurciska**, Sherman Oaks, CA (US)

(73) Assignee: **HONDA MOTOR CO. LTD.**, Tokyo (JP)

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CPC ***G01C 21/3667*** (2013.01)

(58) **Field of Classification Search**
USPC 701/532
See application file for complete search history.

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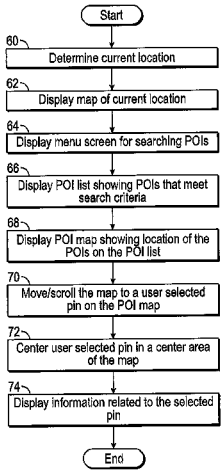
Primary Examiner — Thomas Tarcza
Assistant Examiner — Alex C Dunn
(74) *Attorney, Agent, or Firm* — Weiss & Moy, P.C.

(57) **ABSTRACT**

A navigation system has at least one processor. A memory is coupled to the processor. The memory stores program instructions that when executed by the processor, causes the processor to: display a map; display a cursor showing a present location of a vehicle on the map; display a menu screen to enter user selected point of interest (POI) search criteria; display markings on the map, wherein each marking corresponds to a POI matching the user selected POI search criteria; move the map to a user selected marking; and center the map on the user selected marking.

16 Claims, 6 Drawing Sheets



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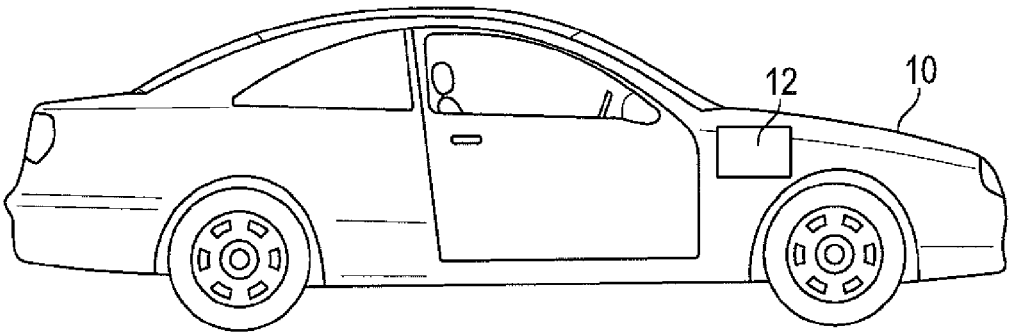
12
10

FIG. 1

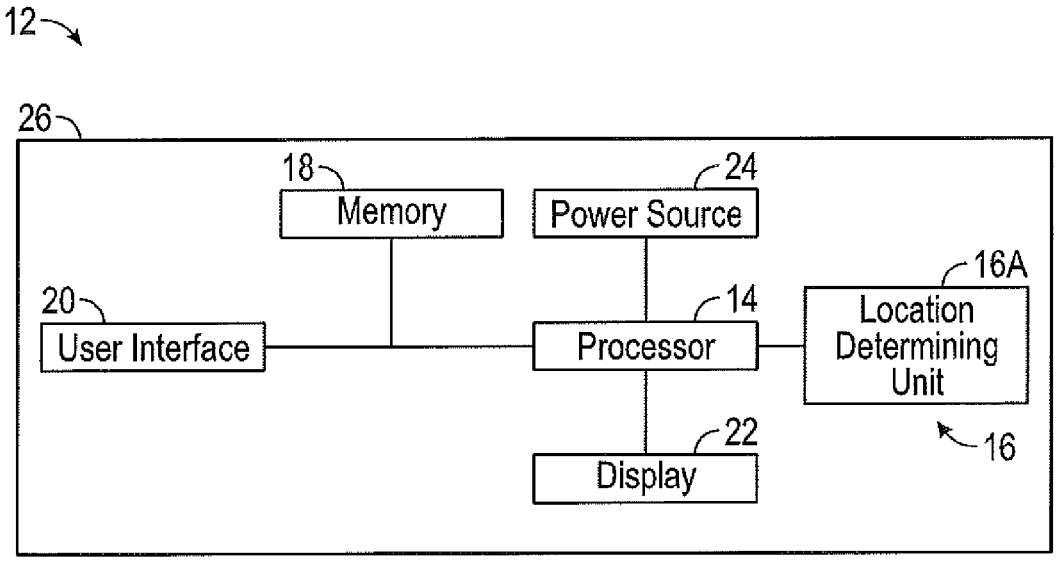
12
26
18
Memory
24
Power Source
16A
20
User Interface
14
Processor
Location Determining Unit
22
Display
16

FIG. 2

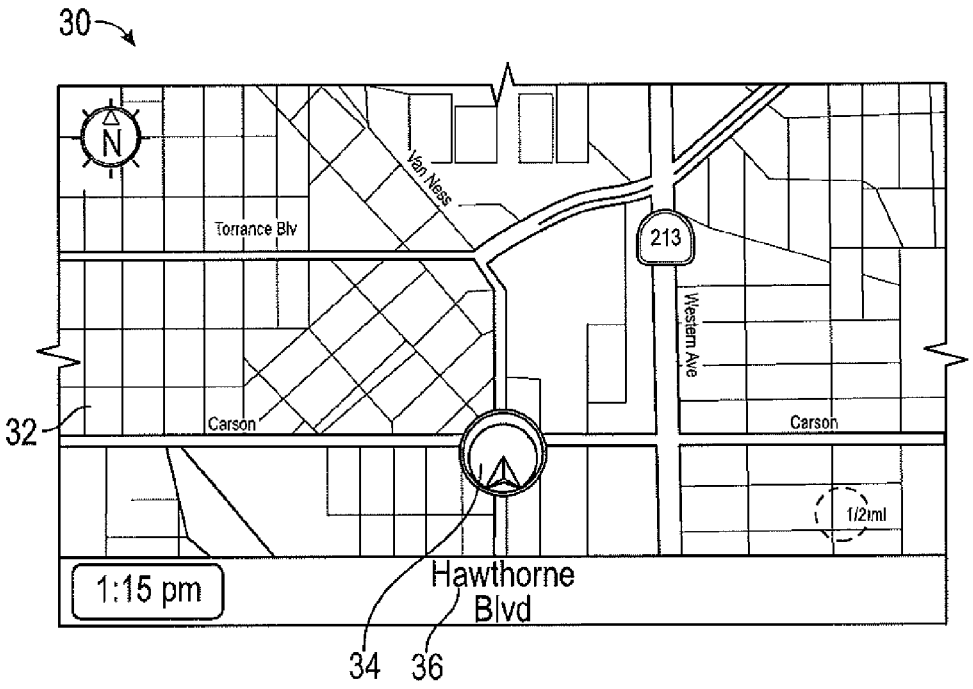
30
N
Van Ness
Torrance Blv
213
Western Ave
32
Carson
Carson
1/2ml
1:15 pm
Hawthorne
Blvd
34
36

FIG. 3

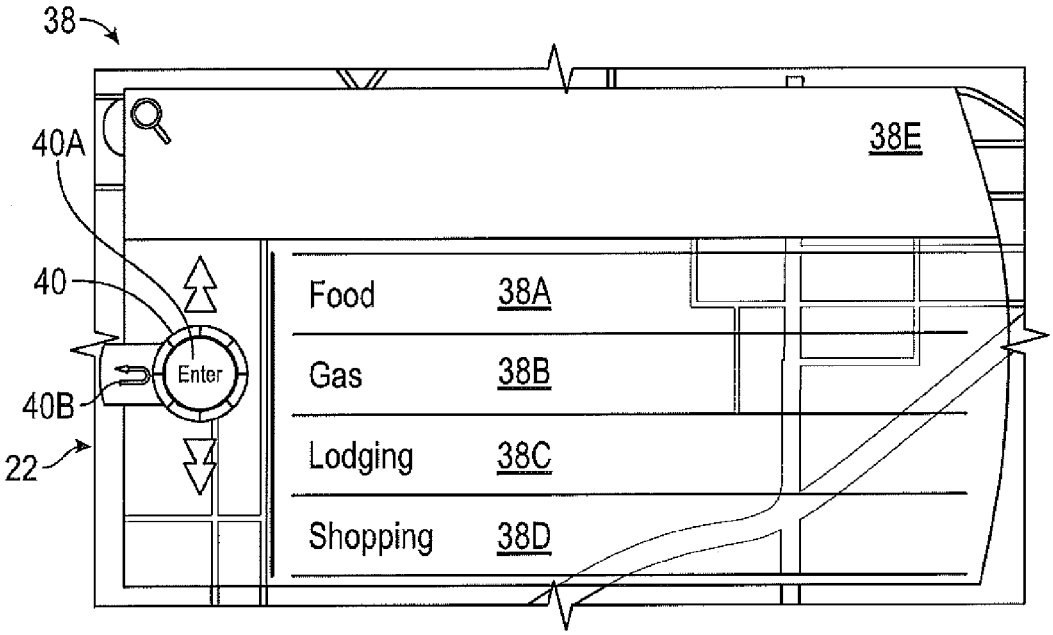
38
40A
38E
40
Food 38A
Enter
Gas 38B
40B
Lodging 38C
22
Shopping 38D

FIG. 4

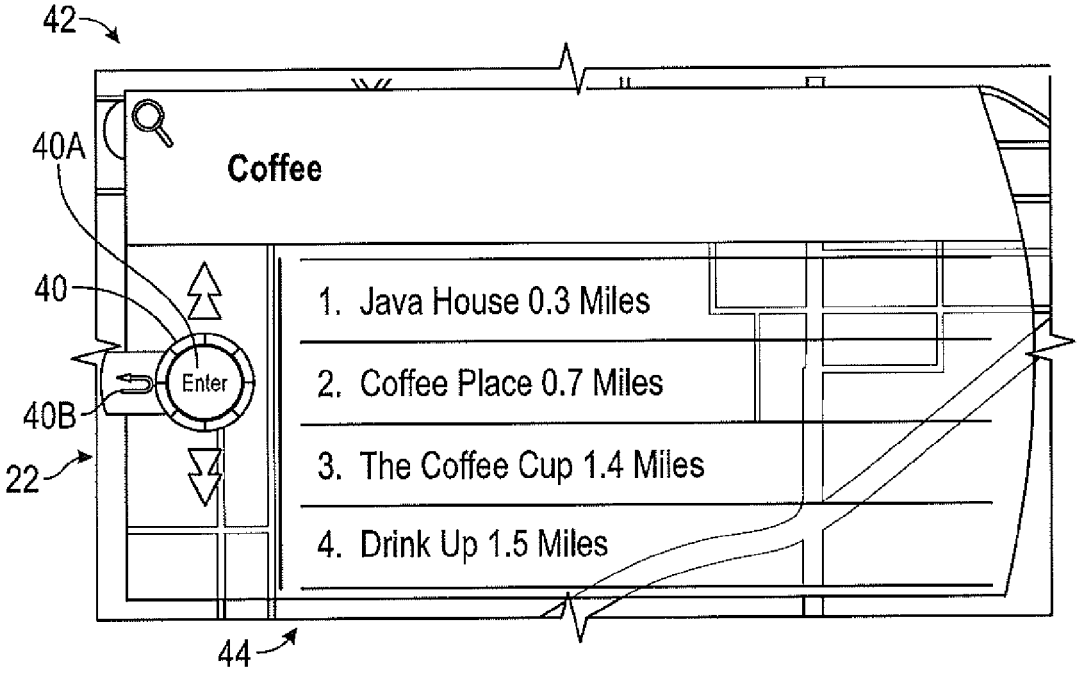
42
40A
Coffee
40
1. Java House 0.3 Miles
2. Coffee Place 0.7 Miles
3. The Coffee Cup 1.4 Miles
4. Drink Up 1.5 Miles
Enter
40B
22
44

FIG. 5

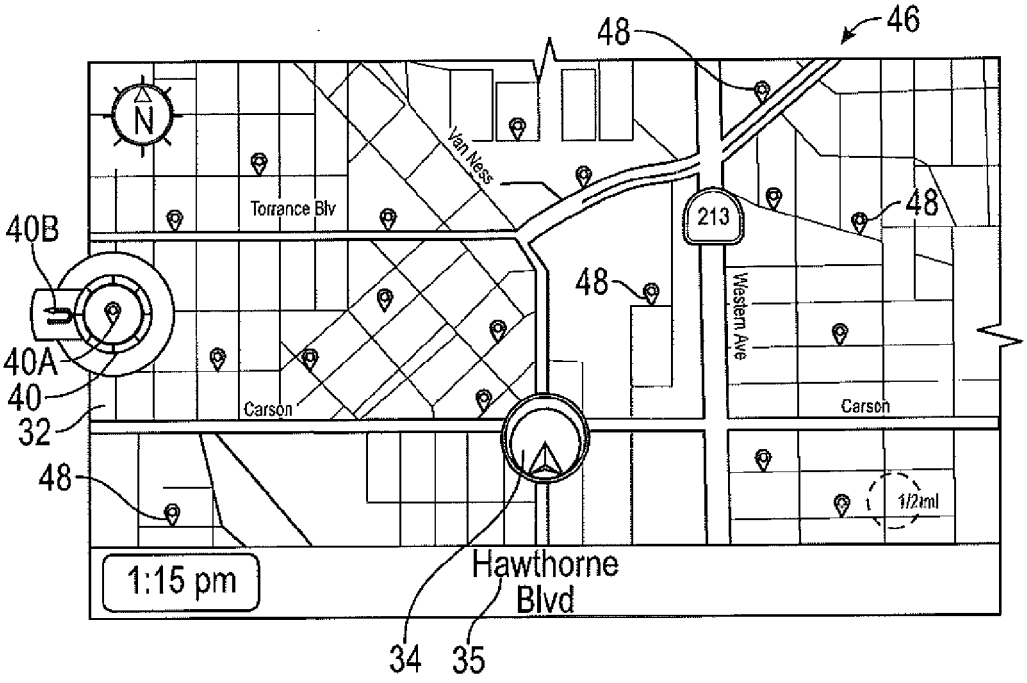
48
46
N
Van Ness
Torrance Blv
213
48
40B
48
Western Ave
40A
40
Carson
Carson
32
48
1/2mi
1:15 pm
Hawthorne
Blvd
34
35

FIG. 6

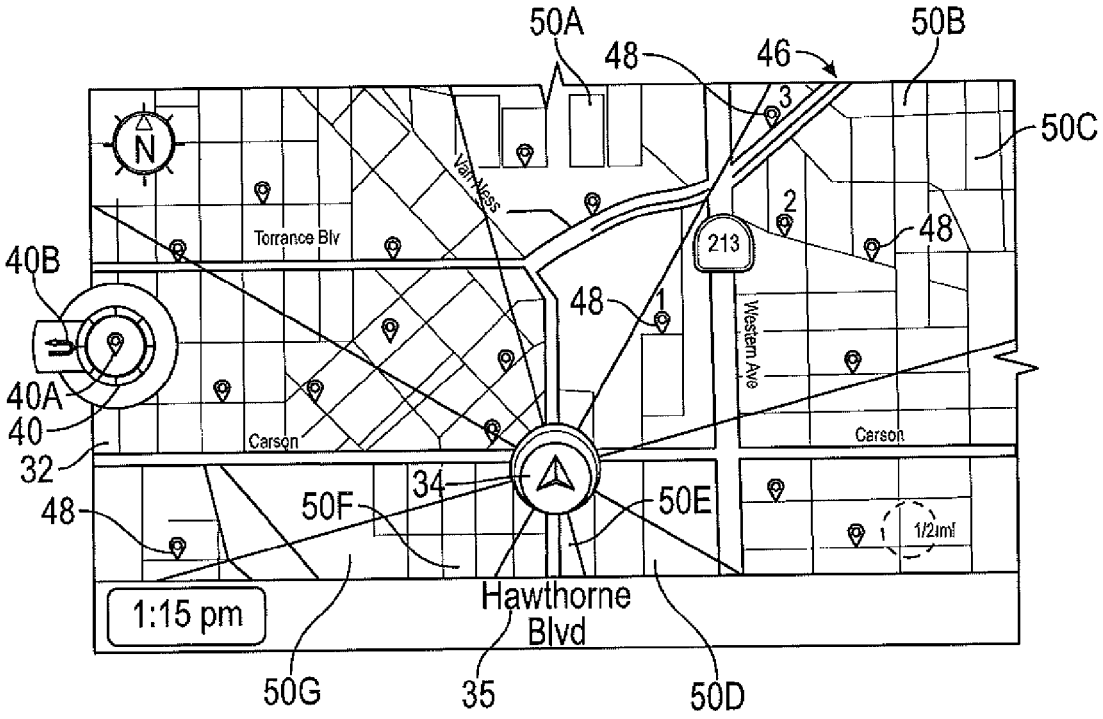
50A
48
46
50B
50C
N
Van Ness
Torrance Blv
213
Western Ave
Carson
40B
40A
40
32
48
50F
34
50E
1/2 mi
1:15 pm
Hawthorne Blvd
50G
35
50D

FIG. 7

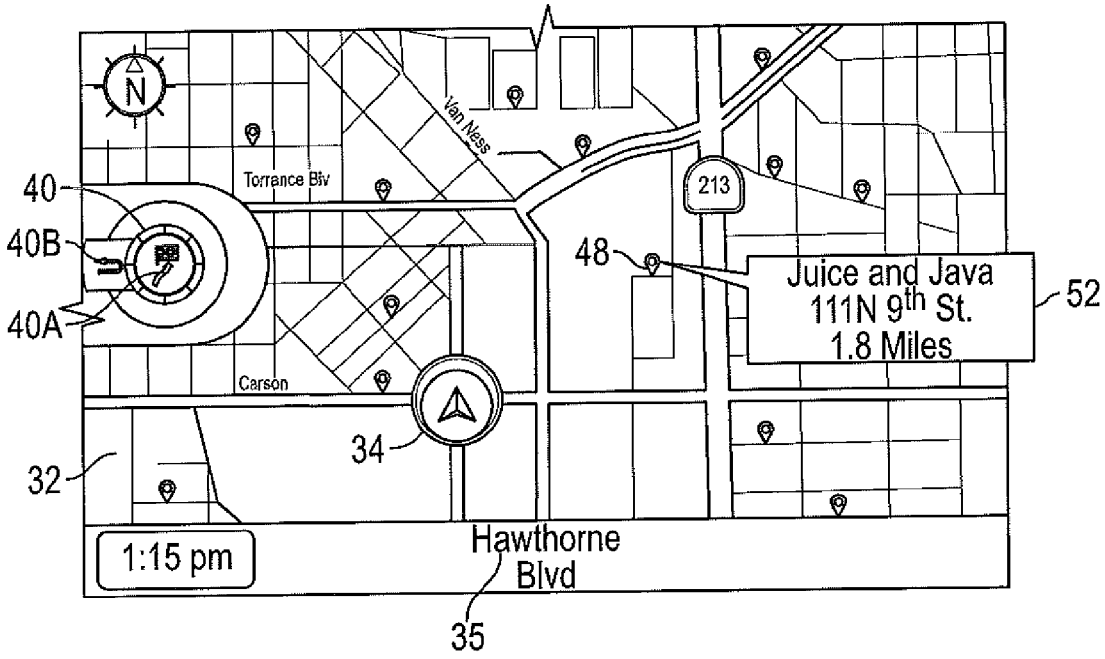
N
Van Ness
Torrance Blv
213
40
40B
40A
48
Juice and Java
111N 9th St.
1.8 Miles
52
Carson
34
32
1:15 pm
Hawthorne Blvd
35

FIG. 8

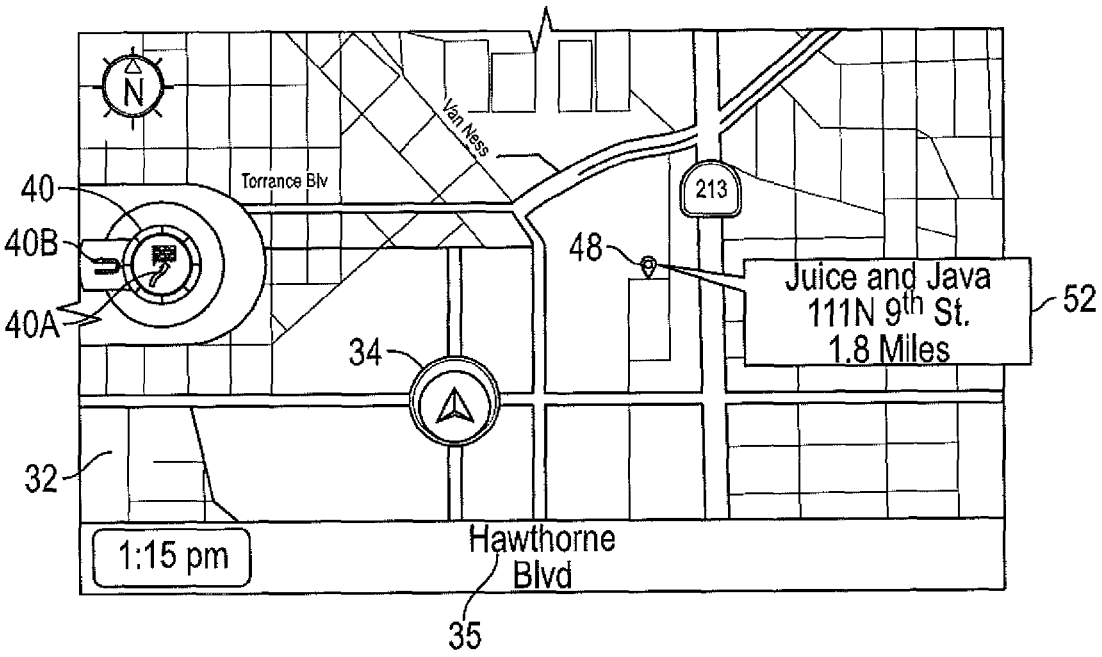
N
Van Ness
Torrance Blv
213
40
40B
40A
48
Juice and Java
111N 9th St.
1.8 Miles
52
34
32
1:15 pm
Hawthorne
Blvd
35

FIG. 9

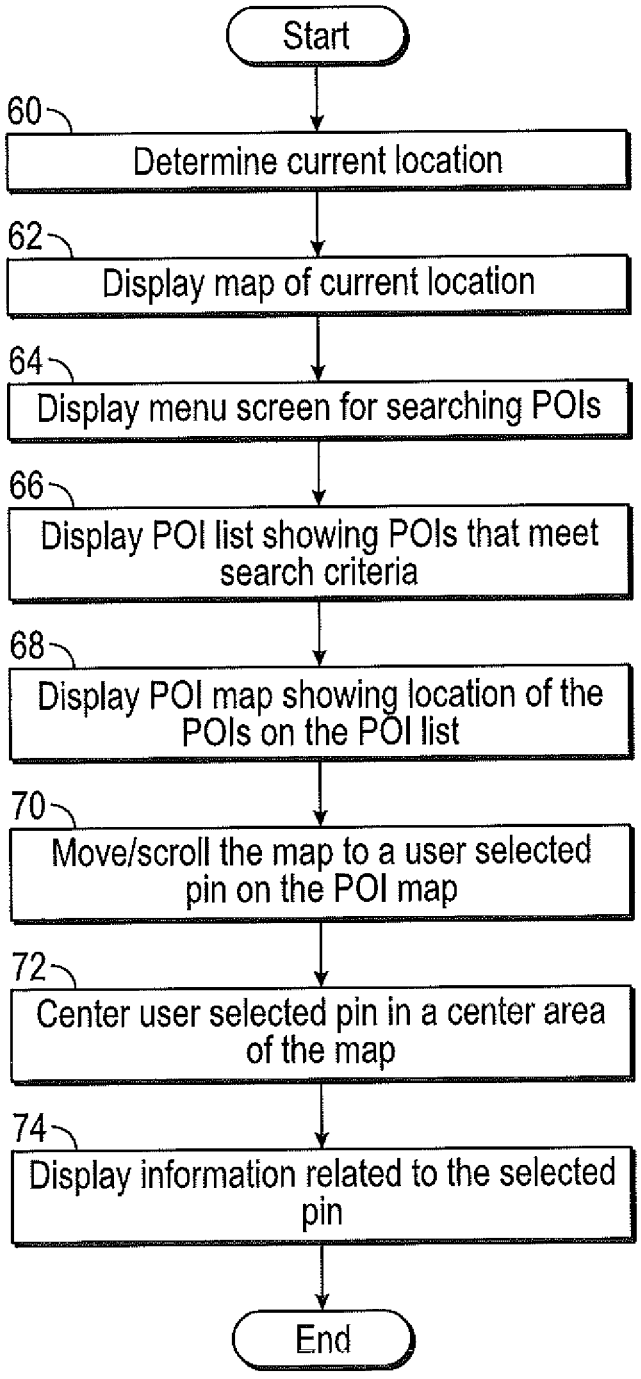
Start
60
Determine current location
62
Display map of current location
64
Display menu screen for searching POIs
66
Display POI list showing POIs that meet search criteria
68
Display POI map showing location of the POIs on the POI list
70
Move/scroll the map to a user selected pin on the POI map
72
Center user selected pin in a center area of the map
74
Display information related to the selected pin
End

FIG. 10

NAVIGATION SYSTEM AND METHOD TO SCROLL TO USER SELECTED POINT OF INTERESTS (POIS)

FIELD

The present application generally relates to a vehicle navigation system, and, more particularly, to a vehicle navigation system that displays different points of interest (POIs) on a map that meet defined search criteria and allows the user to move to a desired POI while providing details of the selected POI.

BACKGROUND

Many vehicles may now be equipped with navigations systems. Vehicle navigation systems may be used to search for and calculate a route from a current location of the vehicle to a desired destination. Typical vehicle navigation systems may be configured to allow a user to enter a name or address of the desired destination. The vehicle navigation system may calculate a route from a current location of the vehicle to the desired destination and provide turn-by-turn navigation directions to the driver via text, speech, or other communications avenues. The vehicle navigation may show a map in graphical format on a display. The map may show the present location of the vehicle as the vehicle moves along a highlighted path to the desired destination. The display may also show the textual directions.

Vehicle navigation systems may allow a user to perform a search for different types of points of interests (POIs) that may be located near the current location of the vehicle. The vehicle navigation system may allow the user to locate different POIs such as nearest gas station, restaurants, parks, shopping centers and other destination types and then select one of the POIs as the destination.

In present vehicle navigation systems, when the user performs a search for different types of POIs, a list may be displayed showing POIs that match the user's search criteria. For example, if a user were to enter coffee shops, a list of coffee shops located near the vehicle may be displayed. Alternatively, or in addition to the list of POIs matching the user's search criteria, a plurality of markings and/or pins may be displayed on the map indicating the location of POIs on the map. Thus, in the above example, the map may have a plurality of pins indicating the location of the coffee shops located near the vehicle. However, limited to no information is provided about each pin. Thus, information such as the name of the POI related to each pin, address of the POI related to each pin, and other POI related data is not shown.

In present vehicle navigation systems, the vehicle location may be represented as a cursor and located in a center area of the display. In general, one cannot move the location of the cursor, as the cursor represents the current location of the vehicle. Even when the vehicle is moving, the cursor generally stays in the middle of the display and the graphical representation of the map continuously updates as the vehicle moves. Thus, if a plurality of pins is displayed on the map indicating the location of user defined POIs, the user is not able to move/scroll to the different pin locations displayed on the map.

Therefore, it would be desirable to provide a system and method that overcome the above identified concerns, as well as additional challenges which will become apparent from the disclosure set forth below.

SUMMARY

This summary is provided to introduce a selection of concepts in a simplified form that are further described below in the DESCRIPTION OF THE APPLICATION. This summary is not intended to identify key features of the claimed subject matter, nor is it intended to be used as an aid in determining the scope of the claimed subject matter.

In accordance with one aspect of the present application, a navigation system is disclosed. The navigation system has at least one processor. A memory is coupled to the processor. The memory stores program instructions that when executed by the processor, causes the processor to: display a map; display a cursor showing a present location of a vehicle on the map; display a menu screen to enter user selected point of interest (POI) search criteria; display markings on the map, wherein each marking corresponds to a POI matching the user selected POI search criteria; move the map to a user selected marking; and center the map on the user selected marking.

In accordance with one aspect of the present application, a method of displaying point of interests (POIs) on a navigation system is disclosed. The method comprises: displaying a map; displaying a menu screen to enter user selected POI search criteria; displaying markings on the map corresponding to a POI matching the user selected POI search criteria; moving the map to a user selected marking; and centering the map on the user selected marking.

In accordance with one aspect of the present application, a navigation system is disclosed. The navigation system has at least one processor. A memory is coupled to the processor. The memory stores program instructions that when executed by the processor, causes the processor to: display a map; display a cursor showing a present location of a vehicle on the map; display a menu screen to enter user selected POI search criteria; display a POI list showing POIs matching the user selected POI search criteria, the POI list displays the POIs in order based on a distance from the present location of the vehicle to each respective POI; display markings on the map corresponding to a POI matching the user selected POI search criteria; moving the map to a user selected marking; centering the map on the user selected marking; and display data in a text box proximate the user selected marking showing information related to the user selected marking.

BRIEF DESCRIPTION OF THE DRAWINGS

Embodiments of the disclosure will become more fully understood from the detailed description and the accompanying drawings, wherein:

FIG. **1** is a side view of a vehicle implementing an exemplary navigation system having a scroll feature to move a cursor to a desired point and to search for points of interest near the desired point in accordance with one aspect of the present application;

FIG. **2** is a simplified functional block diagram of the exemplary navigation system depicted in FIG. **1** in accordance with one aspect of the present application;

FIG. **3** shows one embodiment of an illustrative screen view generated by the exemplary navigation system depicted in FIG. **1** showing a Vehicle Position (VP) cursor in accordance with one aspect of the present application;

FIG. **4** shows one embodiment of an illustrative menu screen generated by the exemplary navigation system depicted in FIG. **1** in accordance with one aspect of the present application;

FIG. **5** shows one embodiment of an illustrative POI list screen generated by the exemplary navigation system depicted in FIG. **1** in accordance with one aspect of the present application;

FIG. **6** shows one embodiment of an illustrative POI map screen generated by the exemplary navigation system depicted in FIG. **1** in accordance with one aspect of the present application;

FIG. **7** shows the embodiment of the illustrative POI map screen depicted in FIG. **6** having the moving areas in accordance with one aspect of the present application;

FIG. **8** shows one embodiment of an illustrative POI map screen generated by the exemplary navigation system depicted in FIG. **1** in accordance with one aspect of the present application;

FIG. **9** shows one embodiment of an illustrative POI map screen generated by the exemplary navigation system depicted in FIG. **1** when the vehicle is moving in accordance with one aspect of the present application;

FIG. **10** is an exemplary flowchart depicting an illustrative method to allow a user to display different POIs on a map and to allow the user to move to a desired POI and provide details of the selected POI in accordance with one aspect of the present application.

DESCRIPTION OF THE APPLICATION

The description set forth below in connection with the appended drawings is intended as a description of presently preferred embodiments of the disclosure and is not intended to represent the only forms in which the present disclosure can be constructed and/or utilized. The description sets forth the functions and the sequence of steps for constructing and operating the disclosure in connection with the illustrated embodiments. It is to be understood, however, that the same or equivalent functions and sequences can be accomplished by different embodiments that are also intended to be encompassed within the spirit and scope of this disclosure.

Referring to FIG. **1**, an exemplary vehicle **10** may be seen. The vehicle **10** may be equipped with a navigation system **12**. The navigation system **12** may be used to provide directional guidance from a present location of the vehicle **10** to a desired location. The navigation system **12** may be configured to display a map showing a plurality of marking and/or pins (hereinafter pins) indicating different point of interests (POIs) that matches a user's search criteria and to allow the user to move to a desired pin and display details of the POI related to the desired pin.

Referring now to FIG. **2**, in accordance with one embodiment, the navigation system **12** may have a processor **14**, a location determining unit **16**, a memory **18**, a user interface **20**, a display **22** and a power source **24**. Each of the above mentioned components of the navigation system **12** may be placed within a housing **26**. The processor **14** may be coupled to the user interface **20**, location determining unit **16**, memory **18**, and display **22**, through wired or wireless connections to enable information to be exchanged between the various components. All or some of the components of the navigation system **12** may be powered via the power source **24**.

The processor **14** may be used to control the various functions of the navigation system **12**. The processor **14** may be implemented in hardware, software or a combination thereof. The processor **14** may store a computer program or other programming instructions associated with the memory **18** to control the operation of navigation system **12**. The data structures and code within the software in which the present disclosure may be implemented, may be stored on a non-transitory computer-readable storage. The non-transitory computer-readable storage may be any device or medium that may store code and/or data for use by a computer system. The non-transitory computer-readable storage medium may include, but is not limited to, volatile memory, non-volatile memory, magnetic and optical storage devices such as disk drives, magnetic tape, CDs (compact discs), DVDs (digital versatile discs or digital video discs), or other media capable of storing code and/or data now known or later developed. The processor **14** may comprise various computing elements, such as integrated circuits, microcontrollers, microprocessors, programmable logic devices, etc, alone or in combination to perform the operations described herein.

When the navigation system **12** is active, the processor **14** may determine a current location of the vehicle **10**. The processor **14** may receive location data from the location determining unit **16**. In accordance with one embodiment, the location determining unit **16** may be a Global Positioning Satellite (GPS) device **16**A. The GPS device **16**A may calculate the current location of the vehicle **10** by timing signals sent by GPS satellites. Each GPS satellite may continually transmits message signals that may include the time the message was transmitted and GPS satellite position at the time the message signal was transmission. The GPS device **16**A may use the message signals received to determine a transit time of each message signal and computes the distance to each GPS satellite. These distances and satellite locations may be used to compute the location of the GPS device **16**A and thus the present location of the vehicle **10**. The above is given as one example. The processor **14** may determine a current location of the vehicle **10** in other manners.

The memory **18** may be coupled to the processor **14** as well as other components of the navigation system **12**. The memory **18** may be used to store various data utilized by the processor **14** and or other components of the navigation system **12**. The memory **18** may include removable and non-removable memory elements such as RAM, ROM, flash, magnetic, optical, and/or other conventional memory elements. The above listing is given as an example and should not be seen in a limiting manner.

The memory **18** may be used to store programming data for instructing the processor **14** or other components of the navigation system **12** to perform certain steps as will be described below. The memory **18** may also store various geographical representations of maps and navigation data, as well as data related to POIs and other related data.

The user interface **20** may be coupled to the processor **14** as well as other components of the navigation system **12**. The user interface **20** may be used to enter information into the navigation system **12**. The user interface **20** may be buttons, switches, keyboard, trackball, scroll wheel or similar device used to enter data. In accordance with one embodiment, the display unit **22** may show an alphanumeric keyboard or other input mechanisms and the user interface **20** may be used to select and enter a desired letter, number and/or other input command. Alternatively, the display unit **22** may be a touch screen display thereby functioning as a display unit **22** and the user interface **20**.

The display **22** may be coupled to the processor **14** as well as other components of the navigation system **12**. The display **22** may be used to show graphical representations of maps, routes, POIs, and other data as will be detailed below. The display **22** may be used to show an alphanumeric keyboard and/or other input mechanism to be used with or as the user interface **20**. The display **22** may be a Cathode Ray Tube (CRT), Liquid Crystal Display (LCD) or display types.

The power source **24** may be provided to supply power to the various components of the navigation system **12**. The power source **24** may be used to directly or indirectly power the processor **14**, the location determining unit **16**, memory **18**, user interface **20** and/or display **22**. The power source **24**

may be batteries, an adapter for running off of power supplied by the vehicle **10** or power supply devices.

Based on the current location identified, the processor **14** may display a graphical representation of a map showing the current location of the vehicle **10** on the display unit **22**. The processor **14** may obtain map data from the memory **18**. Alternatively, the processor **14** may download map data via the location determining unit **16** (i.e., the GPS device **16**A). The graphical representation of the map shown on the display **22** may be a two dimensional representation, a three dimensional representation, a satellite image representation, or other graphical representations.

Referring now to FIGS. **1-8**, operation of the navigation system **12** may be described. When the navigation system **12** is activated, the navigation system **12** may identify a current location of the vehicle **10**. An initial screen view **30** may be generated as shown in FIG. **3**. In general, the initial screen view **30** may show a graphical representation of a map **32**. A vehicle position (VP) cursor **34** may be shown on the map **32**. The VP cursor **34** may be a graphical representation of the vehicle **12** indicating a present location of the vehicle **10** on the map **32**. Data **36** may be shown on the screen view **30** indicating a current street name where the VP cursor **34** is located. Other data such as a current time or a compass indicator may be shown on the screen view **30**. If a route to a destination has been calculated, the calculated route may be highlighted. The navigation system **12** may be dynamic such that as the vehicle **10** moves, the graphical representation of the map **32** and the position of the VP cursor **34** on the map **32** may be updated.

If the user would like to perform a search for different types of POIs that may be located near the VP cursor **34**, the user may enter search criteria through the user interface **20**. In accordance with one embodiment, by using the user interface **20**, a menu screen **38** may be seen on the display **22** as shown in FIG. **4**. The menu screen **38** may have pre-defined search criteria for selected types of POIs. As shown in FIG. **4**, the menu screen **38** may have POI categories for food **38**A, gas **38**B, lodging **38**C, and shopping **38**D. Other POI categories may be shown on the menu screen **38** other than those shown in FIG. **4**. By selecting one of the listed POI categories shown on the menu screen **38**, POIs that meet the pre-defined search criteria of the selected POI category may be shown and/or listed as will be described below. One or more of the POI categories may have one or more sub-categories. The sub-categories may list different divisions of the POIs categories. For example, if the user selected the POI category for food **38**A, one or more sub-categories may be displayed showing different types of food categories such as American food, Asian food, Mexican food, as well as other food types. Alternatively, the sub-categories may be listed based on customer reviews, or ratings. In the above example, if the user selected the POI category for food **38**A, one or more sub-categories may be displayed for five star restaurants, four star restaurants, three star restaurants, two star restaurants, one star restaurants and no star restaurants. The above are given as examples. The POI categories may be divided into other sub-categories than those listed above.

A search area **38**E may be shown on the menu screen **38**. The search area **38**E may be used to enter user selected search criteria. The user may enter keywords, addresses or other search criteria in the search area **38**E through the user interface **20**. The navigation system **12** may be configured to find POIs that match the search criteria entered. For example, if the user wanted to search for coffee houses, the user may enter "coffee" through the user interface **20** in the search area **38**E. The navigation system **12** may locate POIs that match the search criteria for "coffee".

In the embodiment shown in FIG. **4**, a scroll button **40** may appear on the display **22**. The scroll button **40** may be a touch screen button on the display **22** which may allow the user to navigate through the menu screen **38**. By using the scroll button **40**, the user may go through the different POI categories that may be listed on the menu screen **38**. By using the "Enter" button **40**A, the user may select one of the listed POI categories shown on the menu screen **38** or to search for POIs that match the search criteria entered in the search area **38**E.

Referring to FIG. **5**, when the user has entered the POI search criteria, a screen **42** showing a POI list **44** may be displayed. The POI list **94** may show POIs that match the search criteria entered. The POIs on the POI list **44** may be listed in different manners. In the embodiment shown in FIG. **5**, the POIs on the POI list **44** may be displayed based on the distance from the POI to the current location of the vehicle **12** with the closest POI listed first and the furthest POI listed last. The POIs on the POI list **44** may be listed in other manners such as alphabetically, customer rating, or other listing manners. While four POIs may be shown on the POI list **44** in FIG. **5**, any number of POIs that meet the search criteria may be listed. The user may scroll through the POIs on the POI list **44** using the user interface **20** and/or the scroll button **40**.

In order to limit the number of POIs listed, the navigation system **12** may be configured to list the POIs that meet the search criteria and are within a predetermined distance of the current location of the vehicle **10**. Thus, in the example where the user wanted to search for coffee houses, all coffee houses within a predetermined radius of the vehicle **10** may be listed. Alternatively, the number of POIs listed may be limited to those POIs that meet the search criteria as well as within a predetermined boundary defined by the map **32**. Thus, in the example where the user wanted to search for coffee houses, all coffee houses located within the boundary of the map **32** may be listed. In accordance with one embodiment, the map may be set at a default map scale. Alternatively, a user may increase or decrease a magnification level of the map **32**. Thus, the number of POIs listed may change based on the magnification level of the map **32** being shown on the display **22**. In accordance with one embodiment, if the vehicle **10** is moving, the navigation system **12** may limit the number of POIs on the POI list **44**. The navigation system **12** may limit the number of POIs on the POI list **44** to a predetermined number of POIs that match the search criteria and are closest to the vehicle **12**. In accordance with one embodiment, the navigation system **12** may limit the number of POIs on the POI list **44** to the closeted eight POIs that match the search criteria.

The user may switch from the screen **42** showing the POI list **44** to a POI map screen **46** shown in FIG. **6**. The user may use the user interface **20** and/or the scroll button **40** to switch from the screen **42** to the POI map screen **46**. The POI map screen **46** may show the location of each of the POIs on the POI list **44** that meet the search criteria. Markers or pins **48** (hereinafter pins **48**) may be used to show the location of each POI on the map **32**. The navigation system **12** may be configured to allow the user to move/scroll to a user selected pin **46**. The scroll button **40** and/or the user interface **20** may be used to allow the user to navigate a position on the map **32** to a user selected pin **46**. In accordance with one embodiment, the map **32** may move to the next pin **46** in the user selected direction. If the user continues to press the scroll button **40** and/or the user interface **20** in the same direction, the map **32** may continue to move to the next successive pin **46** in the user

selected direction. The movement of the map **32** may stop when there are no more pins **46** in the user selected direction. Alternatively, the map **32** may return to the first pin **46** closest to the cursor **34** in the user selected direction.

In accordance with one embodiment, the map **32** may be divided into a plurality of sections **50**. Each section **50** may correspond to a direction in which the scroll button **40** may move the map **32**. Thus, if the scroll button **40** is a touch screen 8-way scroll button, the map **32** may be divided into eight different sections wherein each section may correspond to one of the eight different directions the scroll button **40** may move.

As may be seen in FIG. **7**, the map **32** may be divided into a plurality of sections. In the embodiment shown in FIG. **7**, the map **32** may be divided into eight sections **50**A-**50**H. Each section **50**A-**50**H may correspond to one of the eight different directions in which the scroll button **40** may move. While the map **32** on FIG. **7**, may show a plurality of lines dividing the map **32** into the eight sections **50**A-**50**H, the lines are being shown for illustrative purposes.

If the user were to move the map in the direction corresponding to section **50**B, the map **32** may move to the pin **46** labeled as **1** which is the 1st pin **46** located closest to the VP cursor **34**. If the user continues to move the map **32** in the direction corresponding to section **50**B, the map **32** may then move to the next pin **46** labeled as **2** in section **50**B which may be the 2nd closest pin **46** to the VP cursor **34** in the direction corresponding to section **50**B. If the user continues to move the map **32** in the direction corresponding to section **50**B, the map **32** may continue to move to next successive pin **46** which may be the pin **46** labeled as **3** in section **50**B. The movement of the map **32** may stop where there are no more pins **46** in section **50**B.

When the user moves the map **32** to a pin **46**, the location of the pin **46** may be centered on the map **32** as shown in FIG. **8**. A bubble **52** may appear proximate the pin **46**. The bubble **52** may have information related to the pin **46**. For example, the bubble **52** may display a name and address of the POI associated with the pin **46**. The bubble **52** may contain the distance from the VP cursor **34** to the pin **46**. Other information such as a phone number or other information related to the POI associated with the pin **46** may be shown.

The user may select the pin **46** as a destination by using the button **40**A or the user interface **20**. If the pin **46** is selected as a destination, a route from the VP cursor **34** to the pin **46** may be shown on the map **32**.

If at any time the user wishes to return back to a previous pin **46**, the user may press a back button on the user interface **20**. In accordance with the embodiment, the back button **40**B may be a button located proximate the scroll button **40** that appears on the display **22**. By pressing the back button **40**B, the user may go to the previous pin **48** that the user just passed. For example, as shown in FIG. **7**, if the user scrolls the map **32** to be positioned on the pin **48** labeled as **3**, by pressing the back button **40**B, the user may scroll the map **32** back to the pin **48** labeled as **2**.

In accordance with one embodiment, if the vehicle **12** is moving and the screen **42** showing the POI list **44** is being displayed, the number of POIs on the POI list **44** may be reduced to a predetermined number. For example, the navigation system **12** may be configured to reduce the number of POIs on the POI list **44** to the eight closest POIs that meet the search criteria. The user may select one of the POIs on the POI list **44** using the user interface **20** and/or the scroll button **40**. By selecting a POI on the POI list **44**, the navigation system **12** may switch from the screen **42** showing the POI list **44** to a POI map screen **46'** shown in FIG. **9**. The POI map screen **46'** may show a pin **48** indicating the location of the selected POI. Other pins **48** corresponding to the non-selected POIs on the POI list **44** may not be shown. A bubble **52** may appear proximate the pin **46**. The bubble **52** may have information related to the pin **46**. For example, the bubble **52** may display a name and address of the POI associated with the pin **46**. The bubble **52** may contain the distance from the VP cursor **34** to the pin **46**. Other information such as a phone number or other information related to the POI associated with the pin **46** may be shown.

If the user wanted to go back to the POI list **44**, the user may press a back button on the user interface **20** or the back button **40**B located primate the scroll button **40**. By using the back button on the user interface **20** or the back button **40**B, the navigation system **10** may go back to the screen **42** showing the POI list **44** where the user may select another POI on the POI list **44**.

Referring now to FIGS. **1**-**10**, a method of operation of the navigation system **12** may be disclosed. The method starts with a determination of a current location of the vehicle **10** as shown in block **60**. A map **32** may be displayed showing the current location of the vehicle **12** as shown in block **62**. If a user wishes to locate POIs near the current location of the vehicle **12**, a user may enter a command for a menu screen **38** to appear as shown in block **64**. The menu screen **38** may allow the user to enter and/or selected search criteria to find POIs that match the search criteria entered and/or selected. When search criteria has been entered and/or selected, a POI list **44** may be displayed as shown in block **66**. A POI map screen **46** may be shown indicating the location of each POIs on the POI list **44** as shown in block **68**. Pins **48** may be used to show the location of each POI on the POI map screen **46**. The navigation system **12** may be configured to allow the user to move/scroll to a user selected pin **46** as shown in block **70**. The scroll button **40** and/or the user interface **20** may be used to allow the user to navigate a position on the map **32** to a user selected pin **46**. In accordance with one embodiment, the map **32** may move to the next pin **46** in the user selected direction. If the user continues to press the scroll button **40** and/or the user interface **20** in the same direction, the map **32** may continue to move to the next successive pin **46** in the user selected direction. The movement of the map **32** may stop when there are no more pins **46** in the user selected direction.

When the user moves the map **32** to a pin **46**, the location of the pin **46** may be centered on the map **32** as shown in block **72**. A bubble **52** may appear proximate the pin **46** as shown in block **74**. The bubble **52** may have information related to the pin **46**. For example, the bubble **52** may display a name and address of the POI associated with the pin **46**. The bubble **52** may contain the distance from the VP cursor **34** to the pin **46**. Other information such as a phone number or other information related to the POI associated with the pin **46** may be shown.

The foregoing description is illustrative of particular embodiments of the application, but is not meant to be a limitation upon the practice thereof. The following claims, including all equivalents thereof, are intended to define the scope of the application.

What is claimed is:

1. A navigation system comprising:

at least one processor; and

a memory coupled to the processor, the memory storing program instructions that when executed by the processor, causes the processor to:

display a map;

display a cursor indicating a present location of a vehicle on the map;

display a menu screen to enter a user selected point of interest (POI) search criteria;

display a POI list showing POIs matching the user selected POI search criteria, wherein the POI list is limited to a predetermined number of POIs matching the user selected POI search criteria when the vehicle is moving;

display markings on the map to POIs matching the user selected POI search criteria;

move the map to a user selected marking; and

center the map on the user selected marking.

2. The navigation system, in accordance with claim **1**, wherein the memory storing program instructions that when executed by the processor, causes the processor to display data in a text box proximate the user selected marking showing information related to the user selected marking.

3. The navigation system, in accordance with claim **1**, wherein the POI list displays the POIs in order based on a distance from the present location of the vehicle to each respective POI.

4. The navigation system, in accordance with claim **1**, wherein the memory storing program instructions that when executed by the processor, causes the processor to display a single marking on the map corresponding to a user selected POI from the POI list when the vehicle is moving, markings corresponding to non-selected POIs from the POI list removed from the map.

5. The navigation system, in accordance with claim **4**, wherein the memory storing program instructions that when executed by the processor, causes the processor to display data in a text box proximate the single marking, the text box showing information related to the single marking.

6. The navigation system, in accordance with claim **1**, wherein moving the map to a user selected marking comprises:

moving to a first marking in a user selected direction, the first marking located closest to the cursor; and

moving to successive markings in the user selected direction wherein each successive marking is further away from the cursor when the user continues to move the map.

7. A method of displaying point of interests (POIs) on a navigation system comprising:

displaying a map;

displaying a menu screen to enter user selected POI search criteria;

displaying a POI list showing POIs matching the user selected POI search criteria, wherein the POI list is limited to a predetermined number of POIs matching the user selected POI search criteria when a vehicle having the navigation system is moving;

displaying markings on the map corresponding to a POIs matching the user selected POI search criteria;

moving the map to a user selected marking; and

centering the map on the user selected marking.

8. The method of claim **7**, comprising displaying data in a text box proximate the user selected marking showing information related to the user selected marking.

9. The method of claim **7**, comprising displaying POIs on the POI list in order based on a distance from a present location of a vehicle having the navigation system to each respective POI.

10. The method of claim **7**, wherein the POI list is limited to a predetermined number of POIs matching the user selected POI search criteria when a vehicle having the navigation system is moving.

11. The method of claim **10**, comprising displaying a single marking on the map corresponding to a user selected POI from the POI list when the vehicle is moving, markings corresponding to non-selected POIs from the POI list removed from the map.

12. The method of claim **11**, comprising displaying data in a text box proximate the single marking, the text box showing information related to the single marking.

13. The method of claim **7**, wherein moving the map to a user selected marking comprises:

moving to a first marking in a user selected direction, the first marking located closest to the cursor; and

moving to successive markings in the user selected direction wherein each successive marking is further away from the cursor when the user continues to move the map.

14. A navigation system comprising:

at least one processor; and

a memory coupled to the processor, the memory storing program instructions that when executed by the processor, causes the processor to:

display a map;

display a cursor indicating a present location of a vehicle on the map;

display a menu screen to enter a user selected POI search criteria;

display a POI list showing POIs matching the user selected POI search criteria, the POI list displays the POIs in order based on a distance from the present location of the vehicle to each respective POI, wherein the POI list is limited to a predetermined number of POIs matching the user selected POI search criteria when the vehicle is moving;

display markings on the map corresponding to a POI matching the user selected POI search criteria;

move the map to a user selected marking;

center the map on the user selected marking; and

display data in a text box proximate the user selected marking showing information related to the user selected marking.

15. The navigation system, in accordance with claim **14**, wherein the memory storing program instructions that when executed by the processor, causes the processor to display a single marking on the map corresponding to a user selected POI from the POI list when the vehicle is moving, markings corresponding to non-selected POIs from the POI list removed from the map.

16. The navigation system, in accordance with claim **14**, wherein moving the map to a user selected marking comprises:

moving to a first marking in a user selected direction, the first marking located closest to the cursor; and

moving to successive markings in the user selected direction wherein each successive marking is further away from the cursor when the user continues to move the map.

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